

## **REMARKS**

The Office Action dated January 28, 2008, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claims 1 and 24-26 have been amended, Claims 29-31 have been newly added. Support for the amendments to the claims can be found on at least page 6, last paragraph of the specification as originally filed. No new matter has been added. The amendments to the claims do not narrow the scope of the claims. After entry of this Amendment, Claims 1-31 are currently pending and are respectfully submitted for consideration.

The Information Disclosure Statement (IDS) submitted on December 6, 2005, is acknowledged by the Examiner. However, the Office Action asserted that Applicant failed to provide copies of all non-patentable literatures cited. Therefore, only U.S. and foreign patent documents cited have been considered in the examination of the claims now pending. In response, Applicant submits, along with this Amendment, a new IDS enclosing a copy of all non-patent literatures.

The Abstract was objected to for minor informalities. The Applicants have amended the Abstract responsive to the objection.

Claim 24 was rejected under 35 U.S.C. §101 contending that the claim is directed to non-statutory subject matter. It is noted that Claims 24 and 25 have been amended to specify that the computer program is embedded in computer readable record medium and to include a series of steps. Therefore, Claims 24 and 25, after

amendment, meet the requirements under 35 U.S.C. 101 and withdrawal of the rejection of these claims is respectfully requested.

In the Office Action, Claims 1-7 and 9-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Toner et al. (Pub. No. US 2004/0024760, filed on July 31, 2002; hereinafter Toner) in view of Murakami et al. (Pub. No. US2004/0181758, filed on July 19, 2002; hereinafter Murakami). Further, Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Toner in view of Murakami and further in view of Bellany et al. (Pub. No. US 2002/0078024, filed on October 12, 2001; hereinafter Bellany). It is noted that Claims 1, 24, 25, and 26 have been amended. To the extent that the grounds for rejection are still applied to the currently pending claims, they are respectfully traversed.

Claims 1 and 26 have been amended to more precisely define that if the predetermined synonym acceptance criteria is fulfilled, the value of the data field and the synonym candidate are associated with synonyms and a synonym set associated with the value of the data field is updated by adding the synonym candidate to the synonym set and that in the searching step, if the synonym set was updated, the comparison to the synonym set comprises comparison to the updated synonym set. That is, if the update has taken place, it is the updated synonym set that is used in the comparison rather than the previous set. The above limitations are similarly recited in Claims 21 and 28.

In the present invention, new candidates for synonyms are actively searched for and the synonym set is automatically updated each time a new acceptable synonym candidate is found. Therefore, rather than just looking for acceptable candidates during a search, in the present invention, synonym tables or the like are dynamically updated by

adding all determined new acceptable synonyms into the synonym set. In other words, the invention provides a dynamic synonym set that is automatically updated and wherein the automatically updated synonym set can be taken into consideration in the next searching step.

On the contrary, Toner relates to search technologies and/or data association where names of foreign origin are matched to names in English. This is done by converting the names into idealized (normalized) versions of themselves based on their true spelling in their original language. This process, called idealization or normalization, can be done either by employing a dictionary of standard, idealized names, or by implementing the idealization in real time by following an algorithm to convert the strings into a normalized representation by their original, native language, see the abstract or paragraph [0030]. The idealization process is based on a phonetic searching method rather than one that takes into account writing variations, see paragraph [0031].

The present invention is not for idealizing or normalizing any names or other strings of characters based on their phonetics and true spellings in their original native language. There is no need to classify the name or other string into a class of languages and/or to determine the original language of the string as required by Toner.

More importantly, Toner does not disclose or suggest dynamic synonym tables which are updated by adding candidates that fulfill a predetermined synonym acceptance criteria. Instead, the table shown e.g. in figure 3 of Toner is static and the process described in figures 6 and 7 is simply a procedure where the existing names on the table are processed and analyzed. There is no disclosure or even a hint that a new synonym could be found and then added into the table of figure 3 and that it would then

be this updated synonym table that could somehow be used when searching for a counterpart for the data record under examination.

The above features of Claims 1, 21, and 26 are not disclosed or suggested by Murakami either. Murakami concentrates on classifying unclassified data and relates to a data technology that can handle a large amount of document data as a corpus and which is effective when the technology is applied to high accuracy generation of candidate synonyms for a word appearing in a document. The processing is based on text mining.

Instead of this, the present invention relates to determining synonym candidates based on already classified input data and therefore relates to an entirely different field of data processing. The present invention does not aim to create a thesaurus usable in text mining to provide a more accurate document analysis, as is made clear in paragraph [0015] of Murakami. Whereas Murakami aims to provide a more accurate document analysis, the present invention aims to provide a dynamic searching for a counterpart for a data record such as a street name.

Therefore, Applicant respectfully submits that it would not have been obvious for one skilled in art to combine Toner and Murakami because based on the completely different field of Murakami, one skilled in the art would not consider Murakami in the first place.

Furthermore, Toner relates to a mechanism for matching textual strings, although this is done by using language by normalization, phonetic representation and correlation functions. Even so, it would not have been obvious for one skilled in the art to combine

the document analysis method of Murakami with the method of Toner, without the hindsight of the current invention.

Even if such a combining now is done with the hindsight of the current invention, the combination would not result in the subject matter of Claim 1, or similar subject matter of Claims 21 and 26. For example, figure 6 of Murakami makes it clear that the candidate synonym acquisition device 130 generates a candidate synonym set for each writer from the data 110 and generates a candidate synonym set for the collective data from the collective data 120. In the evaluation, the candidate synonyms acquired from the collective data are determined to see whether the candidate synonyms are appropriate candidates for synonyms or not, and the result of determination is then output at 160. This method, however, does not equal with a method that if the predetermined synonym acceptance criterion is fulfilled, associates the value of the data field and the synonym candidate as synonyms and updates a synonym set associated with the value of the data field by adding the synonym candidate to the synonym set, and searches for a counterpart for the data record by comparing to entries of the reference data set the value of the data field and/or the synonym set after the step of determining if the predetermined synonym acceptance criterion is fulfilled, wherein, if the synonym set was updated, said comparison to the synonym set comprises comparison to the updated synonym set, as recited in amended Claim 1 and similarly recited in Claims 21 and 28 and amended Claim 26.

Accordingly, it would not have been obvious to combine the disclosures of Toner and Murakami for the reason that they relate to entirely different methods and fields, i.e. methods for matching textual strings using language biased normalization, phonetic

representation and correlation functions in one hand and to a candidate synonym acquisition device to realize more accurate document analysis on the other hand.

Therefore, amended Claim 1 is allowable over the cited art. As Claims 21, 24-25, 26 and 28 and new Claims 29 and 31 include similar features of amended Claim 1, they are likewise patentable at least for the same reasons stated above with respect to amended Claim 1.

Similarly, Claims 2-20, 22-23, 27, and 30 that depend from allowable independent claims are likewise allowable at least due to their dependencies from allowable independent claims.

### **Conclusion**

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of the currently pending claims, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 108800-00007**.

Respectfully submitted,



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